

AMERICAN INEMATOGRAPHER

The Motion Picture CAMERA Magazine

JUNE,
1936

this issue

Turbine Developing Machine
Power for Location
Conditions in London Studios
When Cinematographers Were
24-Sheeted
A. S. C. Members on Parade
... and other features

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Next Month

- Several stories on the technical side of motion picture making will be written by outstanding members of the American Society of Cinematographers.
- We will have a new supply of items about members and their doings on both set and on play under the newly launched department, A.S.C. Members on Parade.
- Actual experiences of several members will be related. These experiences will not only be interesting, but helpful.



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ONE OF THE most remarkable devices recognized in this year's Academy Awards for Scientific and Technical Achievement is the Paramount Transparency Department's Air Turbine developing machine which, according to the report of the Board of Judges, "—marks a notably progressive step in the processing of motion picture film. Its various features distinguishing it from the ordinary developing equipment, such as its air-turbine drive, simplicity and flexibility of speed control, automatic solution pep-up, filtering and non-aerating circulation system, close temperature control, pressure jet turbulence, etc., all combine to make the machine an important contribution to the technical excellence of the motion picture." An equally significant tribute to the machine's excellence is the fact that the Research Laboratory of the Eastman Kodak Company recently purchased a set of plans and specifications of the machine, and is constructing a duplicate at the Kodak Park research laboratory.

The Air Turbine Developing Machine was designed and built under the supervision of Forner Edouart, head of the Paramount Transparency Department. Much of the construction was done in the studio's Precision Machine Shop, under the direction of William Rudolph, Paramount's Chief Mechanical Engineer. The machine has been in daily use for several years, and its construction, and the painstaking research connected with its designing, extended over a period of more than three years. Designed to meet the varying and exacting needs of developing process background plates, and constructed with the most meticulous attention to detail, it is doubtful if a developing machine of comparable precision exists anywhere in the world. Mr. Edouart's vision in creating such a machine and applying it to practical use in production is a most notable achievement.

The machine is a single-strand type with a capacity, according to the speed at which it is operated, of from one to 90 feet per minute. As it was designed to handle either color-separation or projection background plates, unusually ample tankage is supplied; the machine is capable of performing 17 separate operations. It may therefore be used for a wide variety of purposes. While designed primarily for precision development of positive film, it may be used for developing negatives, or for such other tasks as the processing of subtractive color-prints, reversal-processing, tinting or toning, and the like. No sprockets are used in the film-moving drive, and the rollers used are of such design that film of any width from 35mm. to 70mm. ("Grandeur") can be processed. The rollers are sectional, by adding or removing the center-section units, the dimensions of the roller can be adapted to any film-standard. Bakelite is the material used in the construction of the rollers, and as they are mounted on ball bearings, the film can be moved easily, and under an absolute minimum of tension.

Each section of the machine is driven by an individual turbine, powered by compressed air. This provides the smoothest drive known, and also permits independent control of the operating speed and timing of each operation. This has been made possible by providing wash-tanks of more than ample capacity between each of the chemical stages of the machine with an automatic adjustment through which the amount of film in these wash-tanks is governed by the operating speed of the adjacent stages. It is thus possible at any time to increase or decrease the developing-time (or the speed of any other operation) without in the least affecting the speed and timing of any other stage of the processing.

The jet turbulence system used in this machine was an integral part of the original design, and as such represents one of the first practical applications of this principle to the elimination of the so-called "directional effect" and Eber-



Detail showing individual driving turbines

The Paramount

hardt or Mackay lines in machine-developed film. The solution-circulating systems, instead of merely discharging into the tanks, terminate in horizontal tubes which are placed close to the surface of the film-loops in the tank, a series of these tubes are placed on each side of the film-loop, at different depths within the tank. Jets in the tubes eject the solution in a continuous spray, directed against the face of the film, and at an angle against the motion of that part of the loop, where the film moves downward, the sprays are directed upward, and vice-versa. This spraying action assures that the surface of the film is always bathed with fresh solution, and the force of the jet is sufficient to clean away the residue from the chemical reaction, which would otherwise cling to the surface of the film, retarding the chemical action and causing directional streaks.

This jet turbulence is used, not only in the essential chemical operations (developing, short-stop fixing, hardening, etc.), but in the various washes, as well. In these latter operations, the water-jets give the film a gentle yet thorough scrubbing, effectively removing any trace of the chemicals being washed out, and the by-products of the chemical reactions.

In practice, this system of turbulence has been found not only to eliminate directional effects, but to give a much more thorough development. The chemicals have been found to penetrate the emulsion deeper, and to give more clear-out, finer grained images.

The solutions are automatically filtered, "pepped up" and temperature-controlled as they circulate. Each time they pass through the circulating system, they are filtered, and receive an accurately metered amount of fresh solution which offsets the strength lost in the developing,

fixing, or other action. So accurate is this rejuvenation that measured by the standards obtaining in conventional machines, the life of solutions is abnormally long. The active life of developer, for instance, is measured not in days or weeks, but in months.

Each solution is maintained at its most effective temperature by an automatic temperature-control which works to a tolerance of plus-or-minus $\frac{1}{4}$ of one degree. It has been found that each solution has its individual optimum working temperature, and that the best policy is to adhere closely to these temperatures, rather than to maintain a standard, uniform temperature for all solutions. Automatic recording thermometers record the temperature of each solution, and the records are carefully filed for reference. The drying-box is supplied with carefully filtered air of the correct temperature and humidity from a special air-conditioning machine. The developing-machine room is likewise air-conditioned.

The chemical mixing-rooms are entirely separate from the machine and its replenishment-tanks, being located in a separate section of the laboratory, on an upper floor. Rooms for mixing the various solutions are separate, and great pains are taken to avoid any chemical dust in the air. All chemicals are, of course, tested for purity and consistency.

The water and power supplies for such a machine are of the greatest importance. In addition to a very generous use of distilled water, all water taken from the city mains is quadruply filtered before use. This is true even of the water used in the washing and soaking operations. The

would not have any deleterious effect upon the chemicals, or upon other parts of the machine with which they might be in contact. The tanks themselves are made of wood, impregnated under high pressure with a special bituminous compound which is impervious to photo-chemical solutions. All of the metal parts, including elevators, pumps, valves, etc., are of Resalut alloy.

This metal was chosen only after tests which extended over a period of several years. After discussing the matter with the heads of the industry's outstanding laboratories, Edouart conducted preliminary tests of the various metals they recommended, ultimately narrowing down the possible choices to two. Samples of these two metals, in several sizes and worked under varying conditions, were immersed in samples of his plant's standard solutions for periods from six months to one and one-half years. In several instances, the tests were duplicated and averaged, in order to eliminate any possibility of error. Ultimately, Resalut No. 4-B was chosen, as none of the tests showed it to have any effect upon any of the solutions. Even such commonplace parts as nuts, bolts, screws and washers were specially made of this alloy and rigid specifications as to their manufacture set up, so that no unforeseen condition in the manufacturing process might alter the metal's characteristics.

It was obviously impractical to make the tremendous amount of tubing used in circulating the solutions of this expensive alloy, however. Therefore a special, hard-rubber tubing was used. In the production of this tubing, the sulphur used in the vulcanizing process was reduced to a point where it could not endanger the purity of the solutions passing through the tubes. The special composition used is not affected by the warm water (125° F. used in cleaning the circulating system). Similar precautions were taken with the rubber hose used in the many flexible connections in the circulating system, especially to insure that no shreds of fabric could become detached and get into the circulating system.

Such a machine as this could hardly develop its maximum value, however, if the routine of the laboratory of which it is a part does not attain equal precision. Such precision is attained in this laboratory. As the prints are chiefly used for projection-background process work, it is necessary that the steadiness of the printer used be at least equal to the accuracy of the film-perforations. Using the standard Bell & Howell perforation, it was found that this considerably eclipsed the accuracy of existing contact-printers. Therefore a unique optical printer was developed, made and oper-

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Transparency Air-Turbine Developing Machine

by

William Stull, A.S.C.

water passes first through two large sand-and-charcoal filters, next, through a high-pressure sand filter, and lastly through a filter of specially purified, long-staple cotton.

As the film is driven through the machine by air-turbines, the maintenance of an adequate supply of compressed air to drive the turbines is vital. This is somewhat simplified by the fact that the turbines used operate at a relatively low air-pressure. Two independent, electrically-driven compressors supply the air, in the event of failure on the part of one of these, the other can immediately be brought into action. As this machine is used principally for the development of positive film, it has not been considered necessary to provide a secondary source of electrical power to drive the compressors in case of a failure of the electrical power-lines. This could easily be done, however, at Mr. Edouart's suggestion, the negative-developing machines of the studio's laboratory have been fitted with an automatic hydro-turbine device which, when the outside power-supply fails, automatically connects the water-driven motors to a battery of accumulators.

In the construction of this developing machine, unusual precautions were taken to select materials which would not only perform their functions enduringly, but which

General view of the air-turbine developing machine





Supplying Power for Location Lighting

IN ORDER to maintain in scenes photographed away from the studio the same photographic quality that characterizes studio-made shots, it is necessary for both day and night work on location to utilize the advantages of lighting by artificial means. This adds to the normal location-equipment considerations the problem of providing a source of electrical power which is portable, silent, and adequate to the electrical needs of the scene. In some instances, this problem can be solved by the simple expedient of tapping nearby electric power lines and connecting portable electric motor-generator sets which will produce the necessary 115-Volt Direct Current for lighting. In many more instances, such power lines are not conveniently available, and portable generators driven by some such prime movers as gasoline engines must be used.

For this purpose, two types of portable gas-electric generating plants have been developed, each designed for a specific class of service. Where daylight is to be supplemented by artificial "booster" lights, the electrical load is not great, and small units with a capacity of from 40 to 60 kilowatts suffice. Where night exteriors are being made, on the other hand, the lighting problem is to a great extent parallel that of lighting a large stage, and larger quantities of electricity are called for, necessitating larger and more powerful generating units.

In the past, many of these gas-electric generator units have been built up around war-surplus airplane engines, which could at one time be obtained very cheaply in units of 90, 150, 220 or 440 horsepower. Aside from the fact that these engines are not so readily available today, they must be regarded as unsuitable for modern use as they are noisy, and lack the reliability of modern power-plants. Today's practice is to design a portable gasoline-electric generator unit around a thoroughly modern gasoline engine.

For the small "booster" plants, several of the better types of automobile motors have been used with success, as their power corresponds with that required in this service.

Developing the larger, high-power equipment for large night locations, etc., presents a more difficult problem, as larger amounts of current are required, and larger and heavier generators must be used, driven by heavier and more powerful engines.

The latest developments in these large gas-electric generators—on equipment put in service within the last month

—is a capable of delivering a current of 1200 Amperes at 125 Volts intermittently, or a continuous flow of 1000 Amperes. Powered by a 275 hp. heavy-duty gasoline engine and semi-permanently mounted on a streamlined truck, the unit is highly mobile, and may be operated in the open, under heavy load, reasonably close to the microphone.

The engine in this generating plant is a six-cylinder Hall-Scott "Inwader" marine motor, developing 275 hp. at 2100 rpm, and 248 hp. at 1800 rpm. A marine motor was chosen in preference to other available heavy-duty types because such motors are generally designed for relatively long periods of constant-speed operation under heavy load. The motor needed only minor modifications for this use, chief among them being the removal of the standard marine reverse-gear and some re-designing of the crank-case, which were done by the Hall-Scott engineers, and the addition of a centrifugal pump to circulate the water for cooling.

The generator was specially designed by the General Electric Company to match the engine's power-curve. It attains its rated voltage at 1200 rpm, and delivers 1000 Amperes continuously at 1600 rpm. Loads of as high as 1800 Amperes may be carried under the conditions of intermittent load usually encountered in motion picture production. This generator is unusually compact, and weighs only 2100 lbs.

In a plant such as this, the cooling of the motor and generator is obviously of vital importance. The latter is self force-ventilated, and is mounted at the air-intake end of the unit. In front of it is mounted the radiator for cooling the engine's water. This is of the sectional type, comprised

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by
Elmer C. Richardson
Mack-Richardson, Inc.

Joseph August Sets His Own Precedents

by
Harry Burdick



Joseph August, A.S.C., discussing script with Katharine Hepburn. August is discussing the photography in Miss Hepburn's latest picture.

NO ENCYCLOPEDIA of Hollywood's cinematographic history, past or present, can be complete without comprehensive itemization of the deeds performed by Joseph August on and with ribbons of sensitized celluloid for he is one of that small but accomplished group which practically founded the art and plotted the photographic pinode to its imposing record of noteworthy achievements.

During the year 1912, August descended upon the area of real estate termed Hollywood and leased the highly-dramatic offering, "The Lure of the Violin," a "super two-reel feature" of extraordinary box office lure produced by Thomas Ince.

From that time forward and including the historic theme, "Mary of Scotland," currently taking form before his camera, he has contributed importantly to the sum total of cinematographic progress. Possibly the most widely acclaimed contribution of the prevailing period is his "The Informer," which was nominated with scarcely a dissenting opinion by critics of the press here and abroad as the outstanding picture of the year just passed.

"The Informer" is a fair example of the artistic courage and deep-seated technical strength that marks his film creations. No meek and acquiescent follower of well-beaten paths in this Joseph August! To the contrary, he is a bold, brave and rugged coner of adventure into uncharted cinematographic courses. Study of "The Informer" bears out this strength of artistic character. "Mary of Scotland," when unfurled, will present still further evidence of this untrammeled force.

August holds to the premise that he is concerned with the making of motion pictures, motion, not talking, pictures. In spite of the introduction of sound in dialogue and sustaining orchestrations, and other such alluring elements, he never loses sight of the fact that the projected entertainment is primarily a picture. As the result, he strives so to photograph a production that it will of itself pictorially narrate the drama involved. He spurns the sound track as a crutch for insufficient pictorial values. He leased works when screened alone and minus the sound, relate a story in surprisingly complete degree.

Given so adequate a pictorial foundation it is readily to be realized that with the addition of a superstructure of dialogue and music, the ensemble provides audience appeal in degree far beyond the ordinary.

For one who is ever searching out new photographic trails, he has sound aspect for the methods tried and proven through his years of shooting silent pictures. Human nature varies little year to year. Audiences still respond to

the same pictorial dramatics. So August shamelessly uses them. That is, he digs down in his bag of experiences and comes up with a tested photographic expedient. Then he develops that expedient to a reasonable extreme, in line with increasing discrimination of present audiences. These modernized versions of enduring methods he utilizes with telling effect, even though they fly in the very face of pre-warling styles.

He still has good reason to adhere to the principle that a player's eyes are the most expressive mirrors of emotion. Whatever the nature of the film fashioning at hand, the eyes of his characters without exception are so composed as to hold the audience's concentrated interest. This applies even though other factors usually held in high esteem must be sacrificed photographically.

He does to be natural and real and life-like with his imaged characters. Yet he relishes opportunity to go to extremes.

Excerpts from his "The Informer" are illustrative. The apex is of course a weird characterization of a man. The mood is similarly weird. The entire work is an example of affect lighting. He has a foggy street at night. With but three light units he illumined the fog and left it to such light as was reflected by the particles of moisture in the misty atmosphere to make his characters visible.

He plays a love scene in silhouette—with no light whatsoever on the players other than a thin streak across the star's eyes. This in open defiance to the generally followed belief that such scenes must always reveal the star in undiluted detail.

His effects are daring—but so human and wholesome and natural they are not instantly labeled as effects by onlookers. He uses few light units, a handful is ample. He lights salient items and leaves it to shadows to do the rest. Hence, his scenes whether extensive or limited, possess a winning simplicity—the studied simplicity that only genius can maneuver.

He takes artistic liberties galore. He comes little for an arbitrary source of light. Deliberately he goes about giving audiences the qualities his long experience has taught him that they want to see. He will less precedent and hollowed traditions aside unhesitatingly to please his ultimate critic, his spectators.

He never plans scenes in advance. To do so, with August, is fatal to the spontaneity and fluidity he insists on capturing. Scenes so planned, he finds, have trend to be too per-

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When Cinematographers Were 24-Sheeted

by
Reginald Leslie

ON THE VERY COMFORTABLE veranda overlooking his well-kept gardens, I was talking with Charles Rosier. In fact, we were reminiscing. We were reconstructing verbally the days of 1921 when British International Pictures were making valiant bid for place in the cinema sun.

The film was "Atlantic," from a successful play, "Beng," presumably based upon the Titanic disaster. It was the first all dialogue talking picture to be made on British soil, and the first multi-lingual, with versions in English, French and German. No expense or effort was spared to make of it an outstanding contribution to the world's screen library. It was to be a demonstration that England was capable of making films comparable to those issued by other countries.

From Germany was imported the famous UFA director, E. A. Dupont. And from Hollywood was secured the man considered by English experts as the leading motion picture photographer of the day, Charles Rosier. The fact that he had been born in London and had been a Band Street photographer before the movies drifted him and launched him on his series of cinematographic triumphs, caused the London press to twist the lion's tail in most enthusiastic home-town-boy-makes-good fashion. That he was to "turn" for the picture was acclaimed reason enough for its success.

Indeed, the press scarcely made a mention of the cast. It was all Dupont and Rosier. Probably no cinematographer before or since has received the journalistic notice that was awarded Rosier. I recall vividly that I subscribed to this prevailing estimate of the photographer's relative importance in picture production. It was generally regarded—and soundly, I still maintain—that as photography was the medium of expression, the photographer was the all-important artist. In other words, the picture-taker was the picture maker.

"Atlantic" was a considerable success. It was viewed in this country and given very favorable notices. Rosier stayed on to make more pictures on his native heath, including Elinor Glyn's initial directorial effort, "Knowing Men."

So much for our reminiscing. There was a bit of early Spring housecleaning going on in the Rosier home. You know what that means. It accounts for us being sequestered on the veranda. It accounts also for the unearthing of a dust-laden socket that had been reposing peacefully in some out-of-the-way nook for many years. Charles unlocked the pocket. It contained clippings from old film journals. In light of present-day customs they are vastly pertinent in ways more than one.

Consider, if you will, this tabloid film review of nearly twenty years back. It is from *Wid's Daily*, December 17, 1918.

Wallace Reid in
TOO MANY MILLIONS
Paramount

Director	James Cruze
Author	Porter Emerson Brown
Screenplay	Charles Rosier
As a Whole	High Class Production
Story	Well suited for fun-making
Direction	Brought out small points closely
Photography	Excellent
Lightings	Good on players' faces and made interiors look natural

Camera Work	Some ingenious bits
Star	Scotts well as likeable comedian
Support	Well balanced throughout
Exteriors	In atmosphere of story
Interiors	Always in good taste
Character of Story	Hymless
Length	— 4,517 feet

To a follower of current press reviews replete with their professional and sympathetic understanding, this summary is amusing. The reassuring item that the story is "harmless" is particularly priceless. But there is basis for serious reflection in this old review. Notice if you will, that comments covering Photography, Lightings and Camera Work are given precedence over critical mention of the star and his anonymous, though balanced, support. This evidences the comparative importance, typical of the period, attached to photography. The industry had not yet lost sight of the prime fact that it dealt with photographed pictures. In fine, pictures were—pictures. And photographic talent was correspondingly recognized.

This esteem of cinematographic arts was not restricted to commentators of the press. Studios and releasing offices felt it, too. Box office value of notable photography was generally accepted and emphasized to the film-eyeing public.

As recent as 1924, billboards blazoning attractions of a picture listed the cinematographer's name boldly as guarantee of perfect pictorial entertainment. Even the colorful 24-sheets rendered this public recognition of professional prowess. In a cross-back, I find a reproduction of this poster. It delivers a huge portrait of the star, and these words:

Mary Pickford

in

Dorothy Vernon of Haddon Hall
from the famous book by Charles Major
A Marshall Neilan production
Photography by Charles Rosier

And why not? It is a pictorial amusement proffered. Surely, assurance that pictorial qualities are ably presented by a leading artist is argument for the public to attend.

If memory serves correctly, Mary Pickford was the first of our great stars to recognize and appreciate the full value of photography as a contributing factor to her continued screen success. She retained Rosier's services for all the twelve years that he elevated her to fortune and renown.

Even today I hear of many of our leading stars refusing to entrust their visual charms to anyone other than a cinematographer of their choice. They know full well the need for being pictured properly into popularity.

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Harry Zech
A.S.C.

or three independent laboratories in London. You can get good development from these sources if you explain in detail just what you want, and more or less sit on top of the job to see that you get it. There is the constant query, "Why do you want it that way?"

Rushes come through about two or three o'clock the next day and are viewed following dinner. Light tests come with the dailies. Naturally, this means money when sets are being held and doesn't speed production any.

Production as a whole is slow. It takes at least six weeks to turn out the average feature "Things To Come," currently visible here, took a year to finish.

British temperament enters into this. Everything is done in due course, and without undue haste. A needed prop may arrive today or possibly tomorrow. There is none of our split-second speed so typically American.

And there's tea. At eleven in the morning and four in the afternoon, the staff quit for tea. You can be intensely engrossed living up a difficult shot and all of a sudden realize that you are alone on the stage. All hands have silently stolen away. Your Yankee soul resents the interruption—but tea is tea!

Cinematographic Working Conditions In London Studios

ENGLAND is making remarkable progress in the business of motion picture production. The boom is on. Millions of pounds sterling are being poured into the industry. More millions are waiting impatiently. When I left London a few weeks ago, twenty-two new stages were under construction and still more were on drafting-room tables. There is no question but what Britain is determined to have its place in the cinema sun.

London, of course, is not another Hollywood. The largest city of the world was doing business long before films were thought of. Picture production is just another leaf sprouting on the immense industrial structure of the great metropolis. There is no closely-knit, central grouping of studios and studio workers to dominate life of a community, as is the case in Hollywood.

Studios and outside contractors are scattered over a wide area. From the British & Dominion studios at Ebury to a some eighteen miles to the plant of London Film Productions at Denham where Korda is now working, and about thirty-five miles to Ivor where the new British National studios are being erected. Transportation to and from these suburban points is somewhat of a problem, particularly during late hours.

To a cinematographer who has grown up with the industry and who takes as standard the high-pressure efficiency of Hollywood studios, English mechanical and technical equipment, and general studio procedure, seem sadly inadequate. However, in the past six months importation of proved Hollywood equipment and talent has bettered conditions considerably and will doubtless continue to do so.

Lights, as an instance, are not what we are accustomed to using. Mainly, they have locally-made copies of American units which are none too efficient. Open arcs are in abundance. But the modern units which have been evolved out of our long experience are more rapidly coming into use as our manufacturers open London factories.

Laboratory work is nothing to boast of, from our standards. B.I.P. has its own laboratory with none too modern equipment. Other studios send out their work to the two

The British cinematographer is his own operator. He sets his lights and then operates his camera. Very few are on contract. Most of them work by the picture. Their salaries are around twenty pounds—one hundred dollars—weekly.

For the Hollywood director of photography, an operative cinematographer is allowed. Quickly seeing the merit of this practice, the British boys are now demanding a full crew of aides. The operative cinematographer is not too well paid, getting some six to eight pounds the week. An assistant rates three to four pounds weekly. Regardless of hours put in, there is no overtime pay allowance for anyone. Actors are paid somewhere near one-third of prevailing Hollywood rates.

Living conditions are about a third more costly than at home. Gasoline, as one item, retails at thirty-five cents a gallon. I bought a car and paid out two hundred and fifty-two dollars for insurance, license and taxes before ever getting it.

Income tax will run at least twenty-five percent of salary. When you return there are still Federal and State in-

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by
Harry Zech, A.S.C.



A.S.C. MEMBERS ON PARADE

● **Allen Q. Thompson, A.S.C.**, director of cinematography for *Buck Jones*, is seemingly turning seaman. Jones is entering his seagoing vehicle in some regatta, race or competition of some kind. Thompson is a good showman and is doubling in brass—when setting rifles and broods he will be a part of Jones's crew—such is the life of a cinematographer.

● **Charles Herbert, A.S.C.**, sometimes better known as March of Time's Herbert, sailed on the good ship President Gorkhed on May the 8th, for the Orient to secure backgrounds and key scenes for the March of Time library—that is his original mission, but we'll bet our old box brownie that Charlie shoots a couple of news events before he returns. Herbert formerly was the cinematographer who shot so many of those beautifully photographed "Magic Carpets."

This sort of a job makes a fellow like Herbert, a producer, director, scenario writer and a news hound, as well as a cameraman. One of these connections where there isn't a dull moment.

● **Harold Markson, A.S.C.**: Dear Harold. We hear you are arriving at the studio an hour earlier every morning than any other director of photography. We love it as an authority—whether good or bad, we say not—that you immediately tie yourself to a large and comical room that houses the new velocifer. Of course, Harold, we do not suppose for one moment you want to use it, but we hear you wouldn't have any objections to seeing your initials on it for the next production. Come on, Johnny Arnold, give Harold a break, you're breaking his heart.

● **Forrest Edwards, A.S.C.**, and **Dewey Wisley, A.S.C.**, while shooting on "Chinese Gold" at Paramount wrote several verses to a song which might be entitled, "Whistling in the Rain." The particular shot called for rain, which was furnished in the usual overhead pipe-line fashion, but when the rain started raining the rain would also whistle. As we go to press it is reported new verses are being added, none of which are printable.

● **Teoy Gaudin, A.S.C.**, according to Eddie Blackburn, was so ashamed of his golf game that he refused to spend his vacation as usual on the links, but this year had himself to his father's cotton plantation in Texas to gather in what the boll weevil had left of the crop—or was it to get a bit of cotton for his ears so as not to listen to Eddie's stories of his "tunusial" low scores.

● **Gordon Pollock, A.S.C.**, has evolved a double jigger. This is not the type of "jigger" used for Manhattan, or Harle's Neck. It's an adjunct to the Weston Exposure meter and with a twist of a dial gives you a lot of vital information about shutter speed, lens speed and film speed or the circular light.

● **Wm. O'Connell, A.S.C.**, went on a "Mail Carrier's Holy-

day." He motored up to Yosemite on his vacation to do a bit of hi-back color photography with his Leica. Just to keep himself in practice most likely, as Bill is one of the busiest Directors of Photography on the 20th Century-Fox lot.

● **Joseph Welker, A.S.C.**, has a yen to know what the other half of the world is doing so joined the ranks of Scott Radio owners—to jiggle around in those short waves. He heard some strange sounds the other evening and didn't know whether it was a bum sound track or whether he had Addis Ababa.

● **King Chernoy** of the Agfa Chomeys, swears he would never listen to a radio. You know he bought it for the wife and kiddies. Like the electric train dad buys for son. Well, King is getting thinner and thinner. He rushes home ostensibly to his meals, but obviously to see what new station he can get on the other side of the world. Or is he tuning in on Birmingham?

● **Ray Jane, A.S.C.**, is worrying—or is it his banals that are worrying? In any event Ray has a date with the doctor's knife in two weeks. He has his favorite operating room picked out—his favorite nurse and his favorite room with a southern exposure. Now he is wondering whether he will finish the picture on time to keep his many dates.

● **George Falset, A.S.C.**, vs. **John Arnold, A.S.C.**, that's the way the golf score cards have been reading for several years. These two have been belittling each other's golf for so long that they both believe they are good, but Arnold claims George will not bet on his game any more, and George says you can't beat your boss. And so the argument rages.

● **Wm. Daniels, A.S.C.**, is vacationing in the East. He will take in the races at Indianapolis on Decoration Day.

● **Ches Long, A.S.C.**, also is vacationing in the East. Will return via Canada and his auto.

● **Vic Milner, A.S.C.**, is rushing his present picture to completion at Paramount to find out if his boat has sprung any new leaks.

● **Fred Jackman, A.S.C.**, is trying to figure out how membership committees get new members. The Lakeside Golf Club has put him on the membership committee.

● **John Seitz, A.S.C.**, has acquired a permanent assistant cameraman. Son born to Mrs. Seitz recently.

● **Ernie Palmer, A.S.C.**, on his days off roams around the other studios—visits the boys—and invites them to come over to the 20th Century lot when they aren't busy.

● **Herbert Endine, A.S.C.**, is figuring out new combinations of that game, "Herdies."

● **Ches Risher, A.S.C.**, may renew old acquaintances back in his merry London. They are asking for him over there to shoot a super special. Risher was photographer to royalty in England before he came to these here states to become a cinematographer.

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Main Elements of a Successful Picture

FIVE YEARS AGO Chaplin's film, "City Lights," was released to an eager public that received the film enthusiastically and made it a great box office success.

Today Chaplin's film, "Modern Times," is released to an eager public that received the film mildly and made the box office stay below expectations.

What has happened? Why the rather cool reception of "Modern Times" as compared to "City Lights"? Both pictures are the work of the same man, then why the great difference in reception? All these questions and many more have been asked, and no answer has been given that got at the root of things. No one answer is able to do this. An analysis only is able to satisfactorily define the reasons, and analyzing is something that the public is not able to do inasmuch as they do not care to find out the ways of a picture's success or failure as they only come to be entertained and, failing to be this, the verdict is adverse.

The public was definitely not being entertained for the greater part of "Modern Times" and the reason for this is definitely to be found in the picture itself.

Starting the analysis of "Modern Times," the very first question that comes up in our mind is: Did Chaplin lose his grip on the audience? And judging from "Modern Times" the answer is:

As an actor—NO!

As a director—YES!

The "actor" Chaplin is as funny and as pathetic as he always was. The audiences all over the world appreciate the "actor" Chaplin, but the way "actor Chaplin" was presented by "director Chaplin" was far from appreciated by the audiences who were to a great extent frankly bored by the material's presentation. No actor can live above the "ways of presentation" of his material (the film) and if this method of presentation is ill-chosen and faulty any actor will suffer and no actor can correct it. And "director Chaplin" presented "actor Chaplin" in a faulty way.

The very first mistake committed by "director Chaplin" all through the picture was his disregard of the mental make-up of his present-day public. Today's audiences have been poisoned by the talking screen to such a great extent that any time a character opens his mouth on the screen the audience's mind demands to hear something coming out of it, be it sound or dialogue. Mouths were opened and closed and nothing was heard in "Modern Times," except once, the scene where "actor Chaplin" pretenses his act in the cafe, and this was only a fraction of the total time of the picture's enfoldment. The audience was irritated and shocked on seeing mouths open and hearing nothing.

Dialogue has nothing to give to the screen and always must be kept in a secondary place in relation to the visual action. This "director Chaplin" knows, and he also knows that the perfect picture is a silent one with accompanying music and sound effects to underline and add to the mood of the visual image on the screen. But he does not know how to present this vital knowledge to the audience, for if he had he would have done so in "Modern Times."

The secret of this presentation is: Never allow the actors to open their mouths, but make them express with their face, eyes, hands, body, etc., but never with the mouth because the moment the mouth is opened the audience's mind is ready (and demands) to hear something, and failing to do this the present-day public feels irritated and cheated and renders an adverse verdict on the entertainment value of the

by

Max Liser

Director of "Lives Wasted"
and "Hollywood Actor"

"New Film Group Studios" Pictures

picture. To be able to present a picture in this way a script has to be written with this idea in mind, of course.

Fault number two committed by "director Chaplin" in "Modern Times" was his effort in trying to make every character act along "actor Chaplin's" brand of acting. This was particularly irritating and noticeable in the introduction sequence of presentation of the "street-games" Paulette Goddard. Her erratic and speed-up jerky movements were a poor imitation of "Chaplin acting" and unconsciously called forth comparisons in the audience's mind who very much resented it inasmuch as this particular style of acting is so very much Chaplin's that no mind in the world accepts willingly another character with the same "brand" of acting.

To correct this mistake "director Chaplin" should have allowed only "actor Chaplin" to use this type of acting, and all other characters should have been brought up to today's standard of modern acting. In this way "actor Chaplin" would have stood out in successful comparison and brought home to the audience more forcefully his role of the maudlin underdog, so pathetically funny in his always trying to do good and hoping for something better.

The third fault committed was the construction—presentation of the story-material. Chaplin's story-material was of vital interest to the audience, was practically a "j'accuse" of present day conditions of unemployment, etc., and was thoroughly familiar to the audience by their close connection with it in every day life.

This familiarity by the audience with the story-material would have been a great boost for the picture if "director Chaplin" had presented it in a well-knit construction. As the story stands now it wanders and drags many loose ends with it, promising many things and redeeming hardly any.

One of the most annoying was the scene where the minister and his wife visited the jail. The minister and the warden enter the jail proper, while "actor Chaplin" and the minister's wife engage in a meaningless "atomoch-fumbling" contest. This scene was definitely a "loose end" and dragged in by the heels. It did not fulfill its promise for something bigger as it made the audience believe it to be merely the foundation upon which a complete and meaningful sequence was to be constructed. The effect that this scene-without-reason had on the audience was the same one would create in a child by allowing it to get a taste of an all-day sucker, and then deny it the sucker. The final result in both cases, of course, is a tremendous protest. This scene had no business being in the picture and should have been omitted in entirety.

The story as it stood in the picture wandered badly and well because the story-construction demanded an abrupt change in viewpoint from Chaplin to the "gamin," and later on back again to Chaplin.

Continued on page 246



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Continued from page 237

ated to tolerances impossible in contact printing. It is hoped that this printer may be more fully described in a later article.

Prints for the projection-transparency process must be made in an unusually wide range of densities and degrees of contrast, frequently, a background from the department's film-library, though a normal day shot, must be printed to give a night-effect, or vice-versa. In addition, the lighting requirements of two scenes, made with the same background-plate but with different foregrounds and action, will require background-prints of entirely different characteristics. Therefore, in addition to the most precise densitometric tests, print-timing and development are gauged personally by Mr. Edwards, backed by many years' experience in process cinematography.

Normal prints intended for transparency background plates are on a rule made to a rather higher Gamma than prints for ordinary use, but for some special purposes, an abnormally low Gamma is sometimes required, as well. The Gammas obtainable in most normal production laboratories rarely exceed a range of from about 1.90 to 2.10. Between the control obtainable in the printing operation on the special optical printer, and the precise control obtained with the air turbine developing machine, this plant allows a range in Gamma from 50 to 2.70.

The plant's operations are carried on as scientifically as though it were a research laboratory, rather than a plant handling the work of a busy studio department. Every detail of each operation is carefully recorded, and the records filed for future reference. Thus if at any time any particular shot is to be duplicated, every factor can be reproduced: individual emulsion characteristics, printing operations, development-time, temperature, and solution-strength, guaranteeing scientifically identical results regardless of the interval elapsed.

Joseph August Sets His Own Precedents

Continued from page 239

fect, too mechanically precise, in degree not encountered in normal existence. Like other great artists, he is blessed with restraint. He knows when to stop.

Too many a canvas has been over-painted, too many an otherwise imposing structure burdened by superfluous ornamentation.

As this goes to press, studio officials are mysteriously secretive as to "Mary of Scotland." But I hazard the prediction its screening will unleash extensive professional photographic acclaim. If

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1936—None.

1935—None.

1934—January, March, April,
July, August, September.

1933—March, June, October,
November, December.

1932—All months except
October.

1931—All months.

1930—All months.

1929—All months.

1928—April, May, June, July,
August, November, December.

1927—All months except October
and November.

1926—All months.

1925—All months except February,
August, November.

1924—All months.

1923—March, April, May, July,
August, September, October,
December.

1922—February, March, May,
July, August, October,
November, December.

1921—October, November, December.

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will surpass "The Informer" in the application of effect lighting. It is not so extreme as a whole, but in some respects it is more so. Several sequences invite August's most daring technique. He meets the issue wholeheartedly and confidently. You will want to appraise it.

Through his more than two decades as practitioner of cinematographic arts, August has succeeded in retaining his original rugged pioneer spirit. Seasonable modes of photographic urbanity have failed to dim his artistic creative force. He dares to forge ahead. In result, his contributions to the world's film fare are never guilty of pale mediocrity. He is never commonplace. His works are not rubber stamps in celluloid.

Professional critics may dislike his works cordially or like them to resounding applause, according to individual tastes. There is no drab middle ground, his unbridled virility and boldness of artistic expression forbid any such indifference. But as for audiences, they are the staunch advocates of his talented technique. With no exceptions, they are captivated by his winning photographic charm, his appealing simplicity and directness, his uncanny genius at presenting to their sophisticated vision pictorial dramas that are appealing in their flights of polished modernity. And that, after all, is the sought-for cinematographic criterion.

Cinematographic Working Conditions in London

Continued from page 241

come taxes to meet. However, if you are away a full calendar year, you pay the British tax only.

All factors considered, London is entitled to fullest measure of praise for the progress made and being made in its picture production. Comparisons of London to Hollywood are by no means derogatory to the older country. We have been making pictures on a big scale for twenty-five years. They have been at it in intensive fashion, for only three or four years. They haven't the knowledge that comes only from experience, nor should be expected to have it. But they are learning and progressing fast. And they are coming to headquarters—Hollywood—to gain the knowledge and equipment they need.

"Things To Come" has been widely heralded as an outstanding example of what England can deliver. Effectiveness of "trick photography," as the press refers to it, has been trumpeted loudly. Yet, Hollywood is mainly responsible. Ned Wyn Special Effects and a local lad, Lawrence Butler, made the miniatures. Another local product, Jack Thomas, did the optical work which is so spectacular, particularly in the television scenes. And I did the camera work.

I mention this without detracting in the slightest from the fine sketches of

sets drawn by William Menzies and Vincent Korda, both well known here.

On another picture, "Skyroads," I made the projection backgrounds, the air shots and also the straight production scenes. Cinematography has not become so specialized as with us.

There is little production elsewhere in Europe. The trade doesn't take very seriously Mussolini's threat to build another Hollywood in Italy. More attention is given Russia. That government is said to be building a picture plant on the Black Sea at an outlay of sixty-one million dollars—which is important money in any language.

I believe the several Hollywood cinematographers and the many technicians

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with his own hand. Lindsay told their work in the new field interesting and very repayable. I did. I also consider such an undertaking, have conditions clearly set forth in your contract before leaving. Your contract will be as good as a bond there's no legal finagling in England. The studio will arrange your labor permit and probably pay your income tax. Keady even placed a studio car at my disposal, taking me to and from the studio and my hotel. That, at least, is one item of service we don't get in Hollywood.

Main Elements of a Successful Picture

Continued from page 248

Consistency in viewpoint is the keynote of a successful picture. In "Modern Times" Chaplin is the story-viewpoint and this viewpoint should have been adhered to without interruptions. This would have brought the "gamin" to a secondary level, where it belonged, and the audience would have had a chance at giving their sympathy primarily to Chaplin, and secondarily to Goddard. As it is now in the picture the audience does not know whom to give their sympathy to first, then it is demanded later, then that they split their sympathy in equal parts and bestow it simultaneously on Chaplin and Goddard. This naturally confuses the audience, leaves them up in the air and consequently "gets their goat."

To correct this the whole sequence of the "gamin's" introduction in the barroom-swing scene and its following scene at her home with the father should have been discarded entirely, and the introduction be postponed to the moment where Chaplin tries to shield the girl by saying that he stole the bread. This would have been the logical place for the introduction of the "Street-gamin" into Chaplin's life (screen-story) inasmuch as this is correct as to story's viewpoint. Otherwise, and the audience would have loved the character of Chaplin still more because they themselves could have imagined themselves in his place and taking pity on the poor starved girl, thereby cementing firmly the contact between screen (story-character) etc. and audience, and not, as it stands now, be allowed to become disconnected and without support.

Chaplin's pictures are definitely Chaplin and any forced re-adjustment of viewpoint or splitting of viewpoint spells doom for the picture which was clearly demonstrated by "Modern Times" by giving the character of the girl too much importance.

A re-arranging of scenes and a discarding of others in order to adhere without interruption to Chaplin's viewpoint would have sent the audience home in a pleasant mood. As it stands now, for the majority of the people the picture lost

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its grip right after the fade out of the scene where Charlie is carted away in the ambulance.

The above-mentioned three points are the fundamental wrongs of "Modern Times" and without proper foundations everything else is so much wasted effort and fails by the wayside, failing to satisfy the audiences who voice an adverse opinion on the picture, thereby discouraging those who have not seen it yet, and the result is an indifferent box-office reception.

Supplying Power for Location Lighting

Continued from page 238

of two separate cores of six sections each connected to headers at top and bottom. The cores are separated by a two-inch air-space. Air is forced through the radiator by a large, three-bladed aerodynamic fan which is driven by a variable-speed motor supplied with current from the main generator. It is possible to maintain the water-temperature at the most satisfactory temperature for efficient operation (180° F.) by varying the speed of the fan independent of engine or generator speed.

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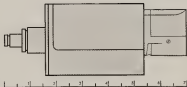
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of the exhaust manifold passes through the generator and radiator compartment—a fact which simplifies the matter of cooling. Three primary mufflers of large capacity are located in a separate compartment above the engine, and from these mufflers, tailpipes carry the exhaust through secondary sound-absorbers which reduce the exhaust-noise to a very low level.

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When Cinematographers Were 24-Sheeted

Continued from page 240

Yet, I know cinema photographers of great professional talents and abilities being addressed in the casual title, "cinematographer." Outside of trade and technical reviews, little notice is accorded his work by critics of the press.

I am wondering if we haven't rather neglected the cinematographer in recent years. With emphasis placed on the newer phases of picture making—all of them essential, I grant you—haven't we in degree forgotten that after all is said and done we are still dealing with photographed pictures? For it still is the photographer who takes all the assembled film arts and transmits them to the public via the thousands of little pictures he puts in his "box."

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AMATEUR MOVIES

this issue

Annual Movie Party . .
Camera the Ball Game
European Reversal Method
Can Amateurs Imitate Professionals?
Camera Angles
Filming Industrials . . .
... and other features

JUNE,
1936

25c

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AMATEUR MOVIE SECTION

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Next Month . . .

• You'll either be going on your vacation or already back. We tell you something about the making of scenery and other types of pictures usually shot on vacation trips.

• Also there will be the usual interesting scenarios adapted especially for family use.



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Movie Party Becomes Annual Society Event

FOR NOTABLE originality and ingenuity, the amateur cinematographer is unsurpassed. Whether camera and film inspire these qualities or whether those equipped with these traits naturally drift to movie making is as unanswered as the query covering the prior arrival of the hen or the egg. Instances of the creative trend are legend. Witness the countless gadgets, the completed films—and now a Movie Party which has come to be an annual institution of such interest that daily papers in New York and Paris gave it prominent mention.

The idea was born quite casually, as is the case with so many things worth while. Duncan MacD Little is an insurance broker and amateur filmer of New York. Seven years ago, some friends were going abroad. He gave a bon voyage party for them at his West 63th Street home. As entertainment he screened a number of films he had made while abroad the previous year.

The following April, one of those friends had brought home several reels of scenic beauty above the average personal travelogue. Little had discovered several others of his friends who were as enthusiastic film-makers as he. So an evening of community screening was arranged. The invitations designated it the Second Annual Movie Party. That set the precedence for an annual event that friends will not let him forget or omit, nor does he want to forget.

Upwards of seventy-five guests attended his Seventh Annual Movie Party held April fourth of this year. Ten films were exhibited, eight of them leased and edited by guests. Selection of these films was accomplished with a maximum of diplomacy.

Each invited guest was asked to submit a film two weeks in advance. Then Little turned the selection of the evening's program over to a committee. These judges were Frank S. Nugent, film critic of The New York Times, Max Eelen Creelman, critic of The Sun, and Wladyslaw T. Benda, artist and creator of the "Benda Masks."

The reviewing was absolutely impartial. No effort was made to determine the films of highest merit. There were no prizes or awards. The selections were made only with the view of presenting the best available entertaining and balanced program of proper length.

Of the ten shown, four were films of travel taken by L. L. Howell, Charles R. McLendon, Irving W. Lyon and Gladys W. Silts. Four were in color by Edward K. Warren, Mr. Little, Bertson J. Delmhorst and Paul E. Verman. Then came two prize-winning films from the 1935 International Contest sponsored by the American Society of Cinematographers, "Happy Day," by T. Lovrenson, Dundee, Scotland, first award in the Home Movie Class, and "In the Beginning," by Fred C. Ellis, Yokohama, Japan, runner up for the Grand Prize. The party was well planned. The seating was arranged, with tickets, program, ushers and a projection staff. Two projectors were worked, with a third in readiness should anything happen to one. There was an additional projector for sound. Musical backgrounds were added to most of the films by means of a double turntable phonograph. Where needed, comments could be interjected by the aid of a microphone. Lights in the "auditorium" were controlled from the "projection room," which had a staff of three.

Projection was continuous, with awkward delays for threading and rewinding eliminated.

During the seven annual parties, films of many subjects have been shown. Travelogues, as would be expected, have

been in preponderance. But there have been other absorbing topics, melodramas, international sports events, semi-industrials, comedies, African hunting, archaeological discoveries, current historicals and events of local interest. Two "accaps" have been included. One was the story of Amelia Earhart's famous flight, which no newspaper recalled, and the first sailing of the United States Liner "Manhattan," which was filmed from the pierhead in New York during a downpour of rain at midnight.

Travel views have been so far afield as Norway and the Arctic Sea, India, Morocco, Africa and interior by-ways of Spain.

Twelve of the guests have attended each of the parties. Of course, the capacity of Little's home limits the invitations and then, only active movie makers are invited.

The Fifth Annual Movie Party, in 1934, resulted in the present plan of selecting the evening's program. In that year, all guests were invited to bring a film to be screened. The projectors timed for into the night. Next year, only a few were asked for film. The current idea of outside judges insures a wider range of subject matter for selection and removes the program from individual preferences.

One extremely interesting situation came up. At one of the parties, two films by different amateurs of the same places were shown. Both were good, but the point of special interest was to note the different results achieved by the two men. Their personalities differed as day from night, and so did their films.

The success that has attended these Movie Parties to the dignity of becoming one of New York's looked-for social affairs is due not alone to Little's cinematographic enthusiasm and ingenuity but also to a loyal group of friends. Long ago, the parties passed beyond the one-man class. This year, eleven of the group, in addition to the judges, collaborated in advising, ushering, projecting and the music.

A printed program that transcends amateur limits is distributed to the guests to aid in their enjoyment of the evening, the establishment of "credits" and as a lasting souvenir of the occasion. Its gay spirit is reflected by this sample "advertisement."

MAKE THOSE GOOD FILMS BETTER SURPRISING! USEFUL FORMULA

Many enthusiasts nowadays develop their own films. This is a most laudable business and I have not a word to say against it. It is, however, somewhat of a strain and I would strongly recommend the following preliminary solution:

Liquor Schae, 2 ooz.
Aqua Soda Effervescent, 6 ooz.

This should be mixed in a glass vessel at a temperature

Continued on page 272



SCENE 6 LONG SHOT Junior, at bat, in foreground. The youthful pitcher winds up and pitches.

SCENE 7 CLOSE SHOT of Junior at bat, awaiting the pitch. He swings vigorously, missing.

SCENE 8 CLOSE-UP of the young catcher, grinning and showing Junior the ball snuggling in his mitt.

SCENE 9 MEDIUM SHOT of Father, disappointed in his homer. He comes in to Junior and imparts a bit of fatherly coaching.

SCENE 10 CLOSE SHOT of the pitcher delivering the ball.

SCENE 11 MEDIUM SHOT of Junior at bat, Father close by. Junior swings mightily at the ball and again misses. Meanwhile, Father has been swinging, in imagination whapping one over the fence. At the miss, he again comes in to Junior, shows him how to hold and swing the bat, stands off and gives demonstration. With encouraging pat on Junior's back, Father withdraws to sidelines.

SCENE 12 CLOSE SHOT of the pitcher pitching.

SCENE 13 CLOSE-UP of Junior at bat. Grim determination is written on his face.

SCENE 14 CLOSE-UP Father yells "Hit it!" in best bleacher fashion and registers keen disappointment on the outcome.

SCENE 15 CLOSE SHOT of Junior's third strike.

Take Your Camera to the Ball Game

by
Barry Staley

SUMMER BRINGS vacations, play days, bright sunny light for cameras—and baseball. Sandlot games are in progress everywhere with youngsters endeavoring to emulate their heroes of the diamond. These impromptu affairs between sides chosen on the spot, played on the nearest open space and with total disregard for adjacent window-glass, are so typically a part of the American scene that this era of your boy's athletic development should by all means be made subject for a film.

Father, proud of his own athletic prowess in years torn from the calendar, can well be brought into the story to give it entertainment value and the inevitable humorous moral.

Gather a few young lads in the neighborhood and have them get under way one of their own conceptions of how baseball should be played. Stage it in a handy vacant lot or parkway. This scenario will serve as a skeleton for your picture.

MAIN TITLE THE BIG LEAGUER

SCENE 1 LONG SHOT of Father walking along sidewalk on his way home, directly into camera.

SCENE 2 LONG SHOT of baseball game in progress on vacant lot. Father walks into scene on sidewalk in foreground; stops and watches.

SCENE 3 MEDIUM SHOT of Father watching the game. Junior, bat in hand, runs in to him from the game and greets Father.

SCENE 4 CLOSE SHOT of Father and Junior. Junior beckons Father to come and watch the game. It's Junior's turn at bat.

SCENE 5 MEDIUM SHOT Father and Junior entering the scene of conflict. Junior takes his botting stance at home plate. Father is nearby on the sidelines, proudly awaiting big things—a home run, at least.

SCENE 16 MEDIUM SHOT as Father steps briskly in to Junior, takes his bat and proceeds to show his offspring how himself, one screamed to the far distance.

SCENE 17 CLOSE SHOT Father, with bat, is warming up, waggling the bat and taking several husky swings. He indicates to the pitcher that he is ready and motions the fielders back.

SCENE 18 CLOSE-UP The catcher signals his pitcher, sending along a sly and knowing wink.

SCENE 19 CLOSE-UP The pitcher acknowledges the signal and the wink, smirking knowingly behind his glove.

SCENE 20 CLOSE-UP Father. Happily confident. This is just like old times.

SCENE 21 MEDIUM SHOT Father, in foreground, and pitcher. Junior is watching closely at Father's request. Comes the pitch. Father takes a massive roundhouse swing—and misses.

SCENE 22 CLOSE SHOT Father turns to catcher, unbelieving. Catcher sensually reassures him by exhibiting the ball. As Father turns catcher throws ball to pitcher, again with his sly wink.

SCENE 23 MEDIUM SHOT Father on the plate. He
Continued on page 270

European Method of Reversing Cine Films

Editor's Note: The formula and instructions reported on this page are recommended by Gevaert to the European users of their film. Across the Atlantic film is sold with and without preserving powders and instructions such as given below are furnished the users of the various makes of film. Those familiar with the progress of reversal film will realize from the formula given that if positive were used the prints would be very contrary. It might work satisfactorily well in the reversing of negatives, which is hardly very odd. We have not tried out this formula and report it merely as a matter of interest to those who have their own laboratory.

THE COMPLETE manipulation and processing of a film by this method requires only about one hour. If the baths can be employed several times, the cost of processing is kept to a minimum.

First Development. The exposed film should be developed to the full, until the high-lights are well visible as black on the back of the film and certain details also can be seen. For films which have received normal exposure it may be noticed that development time of about 10 minutes at a temperature of 68 deg. F (20 deg. C) will be correct. Practical tests have shown that temperature even up to 80 deg. F (27 deg. C) is without harmful effect on the film.

The Watkins factor of the developer given below is 8, that is to say the time of appearance of the first details of the image is multiplied by 8 in order to give the total time of development of the film. For example, if the time of appearance of the first signs of the image is 60 seconds, the film must be developed for 60x8=480 secs, that is to say, 8 minutes.

Solution No. 1

Hydroquinone	— 80 grs	10 gms
Soda sulphite, anhydrous	615 grs	70 gms
Soda carbonate, anhydrous	305 grs	35 gms
Potass Bromide	70 grs	8 gms
Hypo (ordinary Fixing Hypo)	— 18 grs	2 gms
Water	20 ozs	1000 cc

Solution No. 2

Cautschu potash (KHO) stick	2 ozs	100 gms
Water	20 ozs	1000 cc

The separate solutions keep indefinitely. To make the working developer, 9 1/2 parts of Solution No. 1 should be mixed with 1/2 part of solution No. 2.

Washing For 5 minutes

Reversal (removing silver image). This is done in a bichromate bath made by mixing one part of the stock solution given below with 5 parts of water. This bath may be used until completely exhausted. The removal of the silver image takes place in 5 to 10 minutes, and the operation must be continued until the whole of the black silver deposit is dissolved away.

Potass bichromate	260 grs	30 gms
Sulphuric acid 166 Be	5 1/4 drops or 1 oz	33 cc or 50 gms
Water	20 ozs	1000 cc

After the film has been in this bath for 2 minutes, subsequent treatment may be done by white light of a uniform intensity, preferably reflected light.

Although the quantity of white light falling on the film during the second exposure is without effect on the final result, excessive light is nevertheless to be avoided, otherwise the tone obtained during the second development is liable to be too warm. It is advisable to employ a light of 60 to 100 c.p. at a distance of about 3 ft.

Washing For 5 minutes

Bleaching. This is done in a 10 per cent solution of anhydrous soda sulphite. This bath can be used until exhausted. The yellow colour should disappear completely in this bath and the film should be of the original colour of the emulsion.

Washing For 5 minutes

Darkening. This operation is carried out by second development in the following bath:

Metal	18 grs	2 gms
Soda sulphite, anhydrous	— 175 grs	20 gms
Hydroquinone	26 grs	3 gms
Soda carbonate, anhydrous	175 grs	20 gms
Potass bromide	18 grs	2 gms
Water	20 ozs	1000 cc

Treatment in this bath is stopped as soon as the desired degree of darkening is obtained.

Fixing For 5 minutes in an ordinary acid fixing bath.

Washing Wash thoroughly for half an hour

General Note. For production of perfect results it is of the utmost importance that all the operations should be done in a perfect clean place, and all the tanks and other containers should be kept scrupulously clean. Also the various baths should be filtered before use. It is also advisable to filter the washing-water.

Chief Defects Due to Wrong Manipulation. 1. The film, after reversal, is black or fogged. This defect results from the first development, which has not been continued far enough. In this stage of the process the film must be developed "to finicity," that is to say, until the highlights show black on the back of the film. If this is not done a larger or smaller proportion of the silver salt which was exposed to light in the camera is not developed and thus cannot be removed by the reversing bath. These silver salts are darkened in the second developing, or darkening, bath and thus give rise to more or less pronounced fog in the high-lights of the finished film.

2. The reversed film shows a band which is lighter than the rest in the middle (under the perforations). This defect (which of course occurs only in 9.5mm film, in which the perforations are in the middle), is due to the fact that in the first development the developing action is more pronounced in the parts under the perforations, since in these parts the bath which is in contact with the film is more continually renewed on account of the current of liquid which takes place through the perforations. Thus following the first development, a darker band is obtained in the middle of the film, this band becoming lighter than the remainder when the film is reversed.

When developing on drums, this effect does not occur at a particular speed of revolving of the drum—a speed which should be determined by experiments. As a general rule a circumferential speed of about 120 ft. or more is suitable. If the speed falls below this figure, the effect described above is liable to occur.

When developing on frames, this defect can be avoided by reversing the frame at sufficiently frequent intervals, also.

Continued on page 272



Can Amateurs Imitate Professional Tricks?

by

John F. Seitz, A.S.C.

AFTER THE RELEASE of every picture, the professional cinematographer's mail swells with letters asking, "Can I reproduce this effect or that trick in my home movies?" Sometimes our replies can be reassuringly affirmative, at other times, the only honest reply is a regretful "no." Such effects as filtering, diffusion and lighting can almost always be duplicated, or at least closely imitated, with amateur equipment. On the other hand, many of the most interesting tricks—the sort known professionally as "special process shots"—are difficult, if not impossible to duplicate in home movies, for their making involves special equipment unknown to standard filming, and precise workmanship which not even one-micrographers exceed. But on rare occasions, we make a special-effects shot which is not beyond the range of the expert home filmer.

Such a shot appeared in a film I made recently, "Curly

Top," which starred Shirley Temple. It—or rather several similar shots—appeared in a sequence in which Shirley's intended foster father is viewing his collection of famous paintings. As he looks at each of them, the painting comes to life, revealing Shirley, who smiles, bows or waves to him. Since the picture has been released, I have received a number of letters asking two questions: how was the trick done? And how can it be imitated in home movies?

There are quite a number of ways it can be done, either professionally, or otherwise. One method, for instance, would be by optical printing. Another method would be the use of the projected background process. In this case, the picture frame would contain only a ground glass screen, upon which would be projected (from behind) a film showing the painting, which would come to life at the appropriate moment. The camera and projector would be electrically interlocked, so that their shutters operated together. The background "plate," of course, would be made separately, and would be quite a simple shot.

As it actually happened, we used neither of these methods. Instead, we made it without any recourse to "trick" photography in the general sense of the word. Each of the "paintings" was made like a little stage. The "scenery" was simply a reproduction of the background of the famous painting to be reproduced. In front of the "painting," in its proper place in the frame, was a pane of glass which had been carefully smudged with oil to give a suggestion of the texture of the painting. When we made the shot, Shirley, in the proper costume, took her place behind the glass, and became a figure in the painting. As she is a well-trained little actress, she had little trouble in taking the pose of the painted figure, and holding it until the time came for her to move. Then she went through her action, and once more became a painted figure. It was beautifully simple, wasn't it?

And the same idea would work perfectly well in an amateur picture—if one cares to go to the trouble and expense of fitting up life-sized paintings in this way.

But from my own home movie-making experience, I've an idea that most of the 16 and 8 mm. guy will prefer to adapt this trick on a smaller scale. One of my correspondents, Harold P. Roberts, of Akron, Ohio, writes that he would like to apply the idea to one of his films, using a snapshot album instead of a painting for the "picture." He suggests doing it by reflection, beginning with a medium close-up of the actual picture in the album, stopping the camera while the picture is covered with an unframed mirror which will catch the reflection of the pose to be animated, uncovering the lens, and shooting the rest of the scene.

This idea will work quite successfully. But it has two drawbacks. First of all, there will be some very nice problems in angles and reflection to deal with. Photographing reflected images in mirrors is not difficult, but it is unfamiliar territory to many home-filmers, and very few substandard cameras are equipped to sight through the lens, in actual shooting position—a thing which is quite important in such close work as this. Secondly, this method will rather restrict your choice of subjects and locations for the picture that is to come to life. And it will not be at all easy to line up the original "still" with the reflection, so that they blend into each other without a "jump," or a change in size.

Stop-motion background projection will not only minimize this problem, but will enable you to use any scene you wish for the trick. The album is set away, and in the picture's place—preferably slightly inset, so that no front-light falls upon it—is a sheet of fine ground glass.

Continued on page 269



"Camera-Angles" Are What You Make Them

by
Walter Blanchard

IF YOU expect this to be one of those "wry" discussions of the aesthetic importance of these weird camera-angles unappreciative filmers designate as "screw," you're doomed to disappointment. To me, a briefer angle is, nine times out of ten, simply an indication that somebody didn't know how to set his camera level. But, quite aside from this rather asphasic conception, the matter of camera-angles is a mighty fundamental part of the practical task of getting good pictures.

Essentially, the term "camera angle" refers to the position of the camera with relation to what is being photographed. There is—or should be—a definite relationship between the subject, the type of action, and the position of the camera.

The most elementary distinction in camera-angles is between the long-shot, the medium-shot and the close-up. Of course, if you want to split technical hairs, you might name a flock of sub-varieties of each of these, but essentially, you'll still be dealing with close-up, medium-shot and long-shot. The long-shot is made with the camera far enough

away from the subject so that the whole thing—subject and background—is fully shown in the picture. The medium-shot brings the camera closer—say close enough so that if you're filming people, you show about half the figure. The close-up takes both the camera and the audience close to the subject, so that if you're photographing a person, you fill the screen with his head and shoulders, or perhaps merely the head alone.

But that's kindergarten stuff, everybody knows what these shots are. Not so many, though, seem to know how to use them.

Well, in a long-shot, we show everything. If we're photographing people we show the people, and where they are in relation to their surroundings. In a medium-shot, we've moved up closer, to where we can get a better view of what's going on. In a close-up, we've brought our subject within arm's length.

It is almost invariably best to open a sequence with a long-shot. This "orients" the geography of the scene in the minds of the audience, and you've got to remember in any kind of film that although you, who made the picture, may have a clear idea of the general layout of the locale, your audience, like Charlie, "yasn't dere"—and they probably won't be familiar with the arrangement of the place or the room. A good long-shot, held for a few footage at the beginning of the sequence, will tell them where it is, and what it's like.

But in a long-shot you can't very well see the details of the scene, or follow the details of the action. If you want these details in real life, you move up closer. A medium-shot does this for the camera.

There are times when ordinary close approach is not enough to show you the important detail of any thing or action. Then, in actuality, you try to get within arm's length of whatever you're looking at, and get a close-up of it. That's the close-up's primary function in movies.

Now, to bring this discussion to a more practical plane, suppose we're making a vacation-movie in Zion National Park. Still supposing, let's say we open with a pastoral long-shot of the Great White Throne. It shows the scene perfectly, including, in the middle distance, a car with some people around it. We don't know who they are, or what they're doing, but these they are. A medium-shot could follow, and show that they were Cousin Dick and his brother-in-law, and that Dick was doing something to the car. Coming nearer for a close-up, we learn that Dick is changing a tire. And if we want to come to an extreme, big-head close-up, we can prove that Richard is perspiring copiously!

The same thing applies to scenes in which we are more interested in what is being done, than we are in who is doing it. Suppose instead of Cousin Dick, we have an expert service-man at work. The long-shot shows where he is; the medium-shot shows who he is and what he's doing, and the close-up shows how expertly he's doing it.

Just which of these angles is best for any given scene can usually be determined by the idea we're trying to get across to the folks who see the film. If that idea is "where" or "what," the longer shots are best, if it is "who" or "how," closer shots are wiser. Filming a big league ball game, only a long-shot will show it's the Yankee Stadium or the Polo Grounds—but only a close-up will prove that it's Jimmie Foxe batting, or show how he bats.

This business of picking camera-angles can do a lot more than this, however. How often have you seen pictures of people in dark clothes carefully posed in front of dark green shrubbery—or folks in light garments merged into light-colored backgrounds? Nine times out of ten, a little thought

Continued on page 268

Filming an Industrial Document

by
Wallace Black

IF YOU are looking for a "different" film-subject, why not focus on your own business?

Regardless of what that business may be, there is a good picture in it. A picture which you can make better than anyone else, and which will be genuinely interesting to any audience. It can be as long or as short, as intricate or as simple as you care to make it. And most assuredly, it will be something different from the general run of home movies.

Most businesses have more than a single story to tell, so the first step in making an industrial film is to decide which of them your camera is to relate. Let's say our business is one of manufacturing; shall we show the product in action, shall we show how it is made, or shall we narrow our field down to some specialized phase of the product's manufacture or use? Every one of these approaches will lead to a good picture. Each is a complete story in itself.

Once this matter is decided, the next thing to do is to decide how we are going to tell the story we've chosen. There are quite a number of ways. We can, for instance, work up a dramatic story around the subject, one of the most natural ways to do this is to make one of your actors a visitor to the plant, and the other some member of the firm who is showing him around. The "visitor" can ask the questions which the audience will naturally be asking, and the "host" (aided by close-ups and cutbacks) can answer them in words and pictures.

But this treatment takes quite a bit of footage, and—as everyone who has essayed a substandard drama knows—it calls for careful planning and staging if the picture is to be a success. Most amateur actors, too, leave something to be desired.

A simpler, and really more effective method is to ignore the human element entirely, concentrating on the factual story of how the product evolves from raw materials and blueprints to its finished form. This is by far the best course for the amateur industrial filmer, for not only is such a picture simpler to make, but more telling, since there are no non-essentials to distract the attention of the maker or the viewer of the film.

Cinematographically speaking, there are two styles which one may follow in realizing a film of this type. Obviously, the first style is simple, straightforward camera-reporting. In this, your scenes will consist simply of what a normal visitor to the plant would see as he walked along. Most of the story would be told in long and medium shots, showing the craftsmen and their machines at work, just as you would actually see them. Close-ups would be necessary only to show things where an actual visitor would stop and look closer to follow some significant detail. Nar-



An unusual camera-angle adds pictorial interest to the close-up of a knitting machine. Photo by F. M. Clinebaker, A.S.C.

rative titles would explain things, just as in reality your guide would explain them verbally.

Much more interesting, however, is the film which tells the same story with dramatic technique, using the manufacturing process itself as the star, with little or no intrusion of the human element. This sort of a picture can be done almost entirely in close-ups, and made artistically interesting by means of unusual camera-angles and lightings. This treatment, carried out expertly, can eliminate the need for most titles, animation and stop-motion shots can add novelty, and illustrate processes of assembly, etc., which might not be easily understood otherwise.

These various styles have all been used successfully in amateur-made industrial pictures. Not long ago, for instance, I saw a 76mm film which began by starting two young couples off on a vacation in California's Sierra Nevada mountains. Reaching their destination, they discovered that they were in the heart of the gold-mining district. Naturally, they tried their hands at placer mining with pick and pan. While they were doing this, they fell in with a young mining engineer, who showed them through several of the nearby mines, and told them how gold was dug and refined, and what an intricate, expensive process commercial gold-mining has become.

One of the entries in one of the American Cinematographer Amateur Movie Making Contests was one made by an official of the Illinois Public Health Service, and showed how the milk supply of a big city is protected. Milk, from the cow to the noble, was the star of this production. Human actors there were, but they were merely "extras", milking cows, hauling milk cans, making bacteriological tests, and the like.

Another notable Contest entry was a film which told of the making of locks. It was told almost entirely in close-

Continued on page 270



WHEELS OF INDUSTRY

Fatechop Expands

One thousand square feet of space on the fifth floor of the same building in which the store is located was fitted up by Fatechop with automatic printing, developing and enlarging machinery for the processing of still and motion pictures.

Rolliflex Magazine

According to an announcement from Bursleigh Brooks, the popular Rolliflex Magazine published in Germany will be translated and issued in this country. The first edition is now off the press.

8mm Kodachrome

Kodachrome for Cine-Kodak Eight is announced by the Eastman Kodak Co.

As most 8mm film users have probably learned by now from their experience with black-and-white Cine-Kodak Eight Film, the most effective results are obtained in fairly close views, that is, pictures made from 2 to 25 feet from the subject. This does not mean that you will not be able to make distance shots with Cine-Kodak Eight Kodachrome Film. The colors of objects are more apparent when near by, so are Kodachrome movies of your subjects are relatively near the camera.

Cine-Kodak Eight Kodachrome requires a slightly larger aperture than Cine-Kodak Eight "Pan" Film.

Well Frame Counter

For Victor Cameras, model 3, model 4, and model 51.

The Single-Frame Counter is devised to assure absolute correct counting of the number of frames exposed, and wound back.

A spring-steel bracket, on which is mounted a gear, is slipped over the spring housing of the camera, and a small gear is attached to the winding shaft. Both gears are then in mesh and synchronized with the mechanism of the camera. When the film is running, the dial rotates, while the hand on the dial remains stationary. The hand may be set at "Start" or at any number of the dial, as required.

The camera spring may be wound up without removing any part of the device.

Photomicrography

The American Photographic Publishing Company has just published a book of over 200 pages, under the title of, "The Student's Manual of Microscopic Technique With Instructions for Photomicrography." This book was authored by J. Carroll Tobias and sells for \$2.50.

A very comprehensive chapter is given over to the use of the camera with the microscope. It explains set-ups, lighting, focusing and other important details for those who do this type of photography.

P. A. Projector

Victor Animatograph Corporation, Danvers, Iowa, manufacturers of 16mm motion picture equipment, announce that 248 Sound-on-Film Projector can now be equipped with a small pre-amplifier which, when used with a velocity ribbon microphone provides a public address system.

The pre-amplifier, which is a separate unit measuring 4 1/2"x7 1/2"x11" and weighing 6 lbs., plugs into a socket in the base of the Animatophone amplifier. This socket is being incorporated as a standard feature in current model 248 equipments. On 248 Animatophones already in use, the pre-amplifier socket will be built into the base of the Animatophone amplifier free of charge.

8mm Focus Device

Wm. J. Grace, who has contributed many an ingenious accessory and adjunct to the various substandard cameras, submits the photo on this page of a focus device he has made for an 8mm Eastman camera. This requires two lenses and each lens interlocks so that the taking lens is focused automatically when the viewing lens is being focused.



Projector Cases

The Motion Picture Screen & Accessories Co. of New York announces two new projector cases.

One, a case of the "Ever-Ready" type, is called the "De Luxe" model. The projector, during its performance, need not be removed from this case. The projector base fits snugly and firmly into the bottom of the case and cannot possibly wobble. Both sides of the case open flat.

Another model, manufactured by this company for the Kodascope E projector opens sideways enabling one to slide the projector from the case.

The specifications mention that the cases are of 1/2" kiln dried white pine with 1/8" 3-ply veneer sides, nailed and glued and that interlocking corners provide for strength and durability. They are covered with brown, washable leatherette, have metal mountings and solid leather handles.

Reduces Price

Wm. J. Grace of Tewks, manufacturer of the famous Beltpod, and other handy accessories for the movie amateur, announces a one-third reduction in the price of the Beltpod. This piece of equipment formerly sold for \$7.50. The new price set by Grace is \$5.00. It has proved very handy to those who cannot take tripods into certain places for picturemaking. It not only helps to steady the picture, but has a free-acting tilt and pan arrangement.

New Kin-O-Lux Film

Kin-O-Lux announces a new motion picture film for amateurs to be known as Kin-O-Lux No. 3.

This new film is described as high speed panchromatic. It is further claimed that No. 3 extends over the whole range of the visible spectrum. Also the announcement states the speed is about four times that of ordinary orthochromatic emulsion.

Among the special advantages claimed is that it is sensitive to yellow, red and green rays, with the red sensitivity greatly increased.

Continued on page 272



It's Ready

8 mm.

KODACHROME



...and for 16 mm.
movie cameras



The Cine-Kodak Eight Kodachrome film for outdoor shots: 70-foot magazines, \$5; 35-foot rolls, \$5.75; 100-foot rolls, \$9.



The new Type A Kodachrome for artificial light needs no filter, requires far less light, is priced the same.

CINE-KODAK Eight Kodachrome is here—with all of the colorful charm and realism of its 16 mm. contemporary—equally free from complexities of taking or showing.

Any Cine-Kodak Eight, regardless of lens speed, without a single accessory, can now make full-color movies. Every "Eight" projector, unaltered, can show Kodachrome movies.

Filters Unnecessary

No filters are required for all ordinary shots. You simply load up with Cine-Kodak Eight Kodachrome, sight and shoot as you have in the past for black-and-white movies—observing, of course, a few rules of exposure characteristic of Kodachrome filming—and make movies in all of the gorgeous colors of nature.

The projection of Kodachrome is every bit as trouble-free. You can splice color sequences right in with black-and-white, project them consecutively without even a single adjustment of your Kodascope. The color is in the film. And on the screen, as one movie maker expressed it, "It's like looking through a window at life." Smooth, even color—no lines, fringes, or pattern.

Your dealer has "Eight" Kodachrome for you now, packed with ample and comprehensive instructions, priced at \$3.75 per 25-foot roll—equivalent in projection time to the 100-foot 16 mm. roll.* See him today and add color to tomorrow's movies.

*At present Cine-Kodak Eight Kodachrome is being processed at Rochester, N. Y., only.

EASTMAN KODAK COMPANY, Rochester, N. Y.

A JUNIOR

for the Amateur

THE AMERICAN SOCIETY OF CINEMATOGRAPHERS has organized a junior branch of its association for the amateur to be known as the SOCIETY OF AMATEUR CINEMATOGRAPHERS.

FOR MANY YEARS amateurs have been requesting the American Society of Cinematographers to form an organization for them that would be representative, authoritative and instructive.

WHILE IT WOULD be easy to form such an organization in the spirit of enthusiasm that usually accompanies such pleas, but to insure the continuance of such an association it needs real ideals and a constructive policy.

THE SOCIETY OF Amateur Cinematographers is not a society to give to the amateur letters to be used after his name and it does not throw its membership open to everyone who has the fee to join. The Society of Amateur Cinematographers is based on strict and sensible requirements.

FIRST, THE APPLICANT must own a camera; second, he must have made motion pictures, and third, he must submit a picture to the reviewing board which is made up of members of the American Society of Cinematographers. This does not mean that the amateur is going to be judged by 100% professional standards as practically every member on the reviewing board operates either an 8mm or 16mm camera and is familiar with the shortcomings of the amateur's equipment.

WHEN AN AMATEUR has been admitted to the SOCIETY OF AMATEUR CINEMATOGRAPHERS, it is a sign of achievement; it is an indication that he is truly an amateur cinematographer, and he knows

SOCIETY

that his fellow members are active and accomplished amateurs. Also he is being guided by experts, by the acknowledged camera masters of the world, by Hollywood's greatest directors of photography.

MEMBERSHIP will include a subscription to the "American Cinematographer". It will also include the use of the outstanding films made by members of the Society of Amateur Cinematographers. As films are submitted, the best will be duplicated and an analysis prepared by a member of the American Society of Cinematographers. This analysis will go with the picture and the picture will be available to any member of the Society of Amateur Cinematographers.

FOR THE MOST outstanding members and the most able amateur cinematographers, a fellowship will be created, giving that amateur the title of Fellow of the Society of Amateur Cinematographers. Requirements for Fellowship will be announced later.

MEMBERSHIP IN THE SOCIETY of Amateur Cinematographers gives each member access to the films library, privilege of asking questions, and advice on all branches of movie making.

AS THE SOCIETY GROWS, it is the plan to create branches in other centers to be made up of members in those cities. In Hollywood a branch will be created and the programs originated here will go forward to other branches as a unit.

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normal speed. The shutter of the average home-movie camera gives an exposure of from 1/24 second to 1/90 second, depending on the type of camera you are using. This is hardly enough to "stop" really fast motion, so to get a satisfying, unblurred picture of a fast-moving object, we must resort to camera-angles. What actually causes the blur is not so much the actual speed of the object as the distance its image moves across the film during the exposure. If, for example, we are photographing an airplane, and choose a camera-angle in which the plane moves directly across the picture, it is obvious that during our 1/30 second exposure, the image of even a slow plane is going to move quite a bit across our frame. On the other hand, if we choose an angle at which the plane is moving toward the camera, its image won't speed itself over nearly as much of our frame during the exposure. Therefore, the best angle to use in getting shots of fast-moving objects of any kind is one in which they are coming toward the lens. In most cases, a $3/4$ -angle is best, but for very fast-moving objects, it is often necessary to shoot "head-on," to minimize the blur. But if it is not possible to get such an angle—if you must shoot full broadside-on—you can still minimize the blurriness by getting farther away from your subject. True, you will have a smaller picture of the thing, with a lot of background you may not particularly want, but since the image of the object is smaller, its movement across the frame will also be smaller, and the picture will be less blurred.

It's the same way in movies. If you want your audience to understand your scene quickly and easily, shoot your scenes from simple, "head-on" viewpoints. If the action is in itself clear enough to get itself understood, then—and only then—is it safe to use unusual viewpoints. If you've seen any of the

"Camera Angles" Are What You Make Them

Continued from page 202

of camera-angles—selecting an angle that offers a properly contrasting background—will save a world of projection-room apologies.

And there are other embarrassments that can be avoided by similar thoughts of the camera's viewpoint. The other day, for instance, a friend of mine proudly showed me a shot he had made of a famous actor. It was a nice shot, but it was just too bad that a nice, bushy palm tree in the background seemed to be growing straight out of Mr. Gable's head! Two steps to the right or left would have eliminated the Zulu head-ornament. Another chap showed me a scene in which his girl-friend walked from her front door across the lawn and

got into a car. She was really cute pretty—but I don't think she was nearly so long enough to do what the scene made her do: my friend shot straight across the lawn, and just as she entered the picture, a car went by on the cross-street at the corner—and the girl seemed to be pushing it before her like a baby carriage! Of course, only a professional movie-truine can control the traffic in the background and prevent unfortunate cars from stealing the scene—but anyone can pick a camera-angle which does not show the cross-street.

The physical limitations of the amateur movie-camera must be considered in camera-angling on some types of action. Especially fast-moving action. At

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films of the great Russian directors, of whom the highbrows are always raving you'll notice that in the course of ordinary action, they use inck angles only when the action is simple, direct, and easily understandable. The complicated action is always portrayed in a simple, straightforward way.

Of course, this principle works backward, too. If you have something intricate to show, which you want clearly comprehended, use simple angles; but if for any reason you want to confuse your audience (as in putting over the confusion of a big city, a nightmare, or "a drop too much?") remember the unusual angles. Your audience is sure to be confused. And if you do it well enough, the aesthetes are quite likely to hail you as a master of the "new expressionism."¹⁰

Can Amateurs Imitate Professional Tricks?

Continued from page 261

Behind this is a projector, it need not be a powerful one.

To make the shot, you simply choose any scene you may wish for the "still," and thread it into the projector. Turn the projector's light on, with the shutter open, and the heat-absorbing "still projection" safety-shutter in place. With your camera, expose as much footage as you care to allow before the picture animates, one frame at a time. To make the projected picture start to move simply cut the film in the projector down one frame between each frame-exposure made with the camera.

Lining up for a shot like this is simplicity itself. Thread the projector, and focus it on the screen. From the other side, focus the camera on the screen, framing your shot to include as much or as little of the "bordering" "album page" as you choose. This border, of course, will have to be lit from the front, otherwise, it will merely be silhouetted by the projected picture. At the same time, none of the rays that illuminate this "page" must strike the ground glass of the screen. For this purpose, a small spotlight is probably the ideal lamp, for it projects its beam directionally and can be controlled accurately. If you haven't a spotlight, use a regular Photoflood floodlight, fitted with a conical concentrator, such as have as often been described here. The light, I think, would be most effective if it came from the side of the "page." A second lamp, well diffused, might be used from the other side, to avoid excessive contrast.

To completely reproduce the effect of a snapshot coming to life, the area immediately around the edge of the ground glass should be covered with white (or light gray) paper, to imitate the white border around most kodak prints.



SOMETIMES IT'S INTEREST . . . NOT SPEED

Not all the sport pictures are fast action shots. You may want to capture an unusual bit like the above in the early morning or in other light too weak for ordinary camera and film. Leica makes its own conditions—and gets you pictures that you couldn't get any other way.

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This sort of a shot is necessarily a fairly close one. In some cases, it might not convey the idea of a snapshot in an album as completely as we could wish. If that happens, it is a simple matter to make a snapshot-size enlargement of the first frame of the "background plate," and mount it in a bona fide album. Then, in addition to long-shots of the character sitting down to look at the album, we can make a shot from over his shoulder, showing the real album in his hands, with the picture very evident in it. After this, cut to our "process shot" close up of the picture coming to life—and the effect will be very convincing.

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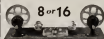
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Filming an Industrial Document

Continued from page 259

ups, the only suggestion of human action was an occasional glimpse of hands operating lathes and drills. And human players were not needed! Before your eyes the rods and sheets of metal were cut, shaped and moulded, taking mysterious form as parts of an intricate lock. When all were completed, they assembled themselves (thanks to stop-motion), and operated themselves to show you how they worked. I don't think there was a single explanatory title in the picture, for the action was so well planned and so completely shown, that no explanation was necessary. And the camerawork, which made generous use of unusual angles and striking effect-lightings, made the picture something which would in itself thrill any photographer's heart.

The technique of making these industrial films is not greatly different from that of making ordinary home-movies. Good photography is good photography, no matter what you are photographing. In industrial filming, however, you are more apt to encounter unfamiliar conditions: cramped space, limited time, and odd light-conditions are to be expected. But a good camera, a tripod, fast lenses, an exposure-meter, a good assortment of film with as many really efficient lamps (both of the stand and the clamp-on type) as you can get, should solve every problem. And, as much of this sort of work will have to be done under artificial light, a plentiful supply of extension-cord will prove valuable. For convenience, this cord should be fairly heavy so that there won't be too much loss of current when your lamps are used far from the current outlet. A multiple outlet or junction-box at the end of this cable will be a very practical advantage, too.

Take Your Camera to the Ball Game

Continued from page 259

in exploring his failure to Junior, who is taking it straight. Father gras his bat.

SCENE 24 CLOSE SHOT Father at bat, poised for the pitch. He takes a terrific swipe at the ball. Strike Two.

SCENE 25 MEDIUM SHOT Father is again allowing his mist to Junior, who is impressed. Off come Father's coat, vest, short-sleeves are rolled up, necktie loosened and collar opened.

SCENE 26 CLOSE SHOT Father is cautioning Junior to watch closely, as he absorbs the fine points of Father's batting technique.

SCENE 27 LONG SHOT as Father waves the fielders still further back and



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they move back as far as they can go. One, possibly, is perched on the fence to catch a soaring liner.

SCENE 28 MEDIUM SHOT The pitcher uncoils an elaborate wind-up and lets the ball come. Father energetically wagging his bat.

SCENE 29 CLOSE MEDIUM SHOT as Father swings at the ball. Again missing. The force of his swing turns him about and sends him from his feet.

SCENE 30 MEDIUM SHOT Father is raising from ground dusting off his trousers. Catcher holds the ball high. Junior is very serious. Another youngster comes in, picks up the bat and steps to the plate.

SCENE 31 MEDIUM SHOT of Father composing himself. Junior is solicitous. The batter, of just size, hits but a long one. Father watches it fade in the distance, smothered.

SCENE 32 LONG SHOT The game carries on, Father's interruption forgotten. Junior is back in the game. No one pays any attention to Father. He gathers his coat and vest and steals away.

SCENE 33 MEDIUM SHOT PAN-NING on Father as he slowly walks along sidewalk. He is limping slightly. **FADE OUT.**

SCENE 34 FADE IN on MEDIUM SHOT of Father sitting in large comfortable chair on porch. From the cheerful way he eased himself into it we know he has aches and pains and stiff muscles.

SCENE 35 CLOSE SHOT of Father. His feet are in a small tub of hot water. A cane is by his side. On the adjoining table are several bottles labeled "Luminal," "For Rheumatism," etc., a bottle of Asaann and a hot water bottle. He moves with great effort.

SCENE 36 MEDIUM SHOT on the porch as Junior comes skipping in merrily. Bat in hand, he offers it to Father for more fine points in home-run hitting.

SCENE 37 CLOSE SHOT of Father showing intense distaste for the bat and all things pertaining to baseball. Painfully, he waves Junior away, very disgustedly.

SCENE 38 CLOSE-UP of Father in his chair. He picks up a book and starts to read. We can see the title. It reads, "Life Begins at Forty." **FADE OUT.**

All of these shots are easy to lens. Get a good variety in your set-ups and angles. If your camera will take "slow motion," shift to too speed for an interesting shot to cut in. Take position just behind the batter and below the level of his bat, shooting slightly upward. Have one of the boys toss a ball in, and let the batter swing at it. In slow motion the ball will appear to hang suspended in the air seemingly impotable for the batter to avoid hitting.

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AMATEUR MOVIE CONTEST FOR 1936...



The AMERICAN CINEMATOGRAPHER 1936 Amateur Competition is open to amateurs all over the world who use either 8mm or 16mm film.

The films must be in the offices of the AMERICAN CINEMATOGRAPHER not later than November 30, 1936.

There are no restrictions as to the number of subjects that may be entered, nor are there any restrictions as to the length of the subjects. The one strict rule that applies, however, is that no professional help is received in the making of the picture. This does not include titles which may be made at a laboratory.

The recognition of those who are given awards will be in the nature of a gold medallion which will be given by the American Society of Cinematographers who will be the judges of these pictures.

The pictures will be given classifications so that the competition may be fair to all entrants. By this we mean that an entrant having a documentary film will not compete with one who has based his on a scenario. Of course, there will be more classifications than these. The classifications will be created according to the pictures that are received.

Please remember your films must be in the office of the AMERICAN CINEMATOGRAPHER, 6331 Hollywood Boulevard, Hollywood, Calif., not later than November 30, 1936.

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